Amendment Dated April 8, 2010

Reply to Office Action of December 8, 2009

### **Remarks/Arguments:**

Claims 1-8, 10, 15, 16, and 18-24 were the pending claims in this application. Claims 19 and 20 are cancelled without prejudice or disclaimer of the subject matter thereof. Therefore, claims 1-8, 10, 15, 16, 18, and 21-24 are now the pending claims in this application. No amendments have been made to the pending claims.

#### **Information Disclosure Statement**

The Office has not considered foreign reference DE 40 40 450 A1 submitted in the Information Disclosure Statement (IDS) of September 4, 2009, stating that an English abstract was not provided "as required by M.P.E.P. § 609.04(a)." Contrary to the Office's statement, an English language equivalent, namely U.S. Patent No. 5,165,970, was provided with the IDS filed September 4, 2009, however. M.P.E.P. Section 609.04(a)(III) states, in relevant part:

An English-language equivalent application may be submitted to fulfill this requirement [for a concise explanation of relevance] if it is, in fact, a translation of a foreign language application being listed in an information disclosure statement. There is no requirement for the translation to be verified.

The IDS filed September 4, 2009 complied with M.P.E.P. § 609.04(a) and clearly stated that an English language equivalent, U.S. Patent No. 5,165,970, was provided for the German reference, DE 40 40 450 A1. Accordingly, Applicant respectfully requests that the Examiner consider DE 40 40 450 A1 and initial and sign the IDS dated September 4, 2009.

# Rejections under 35 U.S.C. § 112, sixth paragraph

Claims 19 and 20 were deemed to not properly invoke 35 U.S.C. § 112, sixth paragraph for certain means-plus-function language. Claims 19 and 20 have been cancelled without prejudice or disclaimer of the subject matter thereof. Accordingly, Applicant respectfully submits that the rejections of claims 19 and 20 are now moot.

## Rejections under 35 U.S.C. § 103

Claims 1-8, 10, 15, 16, 22, and 23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,550,034 (Shimrock et al.). Claim 24 stands rejected as obvious over Shimrock in view of U.S. Publication No. 2007/0028604 (Twigg et al.). Claims 18, 20, and 21 stand rejected as obvious over Shimrock in view of U.S. Patent No. 6,695,278

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(Ellis), and claim 19 stands rejected as obvious over Shimrock, Ellis, and U.S. Patent No. 4,562,821 (Ikeda). Applicant respectfully traverses these rejections. Applicant contends that these rejections are improper, and the claims distinguish over the cited references because Shimrock et al. fails to disclose or suggest (1) reducing the pressure in the pore structure of the wall-flow filter *prior to* contacting the surface of the evacuated channel walls with the liquid; and (2) a wall-flow filter.

"To establish a *prima facie* case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. §2143. A prior art reference must be considered in its entirety, i.e., as a <u>whole</u>, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). See M.P.E.P. § 2141.02(VI).

Claim 1 recites, in part, that the step of reducing the pressure in "the pore structure of the wall-flow filter occurs **prior to** contacting the surface of the evacuated channel walls with the liquid," and "the plurality of channels in the **wall-flow filter** are plugged at an inlet end or an outlet end of the wall-flow filter." Thus, as claimed, there is a step of reducing the pressure to provide evacuated channel walls and another step, occurring after the reducing step, of contacting the surface of the evacuated channel walls with the catalyst component/precursor. Also, the claimed method specifies a wall-flow filter.

First, Shimrock et al. fails to disclose or suggest reducing the pressure in the pore structure of the wall-flow filter *prior to* contacting the surface of the evacuated channel walls with the liquid. The Office Action admits that "Shimrock does not expressly teach [that] reducing the pressure in the pore structure of the wall-flow filter occurs prior to contacting the surface of the evacuated channel walls with the liquid." Office Action page 4, item 7a. Nonetheless, the Office Action then alleges that "claim 1 teaches the use of a vacuum, which can only be applied either before or after contacting the surface of the evacuated channel walls with the liquid. So, it would have been obvious to a person of ordinary skill in the art at the time of the invention to draw a vacuum prior to contacting the surface of the evacuated channel walls with the liquid of the invention of Shimrock." Office Action page 4. Applicant respectfully disagrees.

Shimrock et al. does not indicate that the vacuum step may be applied first, and, in fact, teaches away from the invention by requiring the substrate to be contacted with a slurry before

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applying the vacuum. Shimrock et al. discloses first placing the ceramic monolithic catalyst support member in a reservoir containing a predetermined amount of slurry, and subsequently, applying a vacuum to the opposite end of the monolith to draw the slurry into the interior skeletal passageways until the slurry in the reservoir is exhausted. See e.g., column 3, lines 10-24 Shimrock et al. Shimrock et al. cautions that it is *critical* that, when the monolith is partially submerged in the coating slurry to maintain a gap between the bottom edge of the monolith 18a and the bottom surface 16 of the pan 10 exists *before* the vacuum is drawn. Column 7, lines 3-10 of Shimrock et al. See also Figure 1 showing the monolith 18 placed in a pan 10 of slurry 11 submerged below slurry level 11a, and then applying a cover 14 to apply a reduced pressure in chamber 21. Therefore, Shimrock et al., considered in its entirety, fails to disclose or suggest reducing the pressure in the pore structure *prior to* contacting the surface of the evacuated channel walls with the liquid, and actually teaches away from the claimed invention by indicating that it is critical to position the monolith in a certain way when submerged in the coating slurry before applying any vacuum. Accordingly, Applicant respectfully submits that a *prima facie* case of obviousness has not been established.

Additionally, Shimrock et al. fails to disclose or suggest a wall-flow filter. In particular, Shimrock et al. fails to disclose that the plurality of channels in the wall-flow filter are plugged at an inlet end or an outlet end of the wall-flow filter, as recited by claim 1. Shimrock et al. relates to a method for impregnating the interior skeletal structure of a ceramic monolithic catalyst support. The interior of the ceramic monolith is described as a plurality of longitudinal passages extending from end to end thereof. See column 4, lines 15-17 of Shimrock et al. In other words, Shimrock et al. describes a "flow-through" substrate in which the flow path is along the length of the channels, i.e., axially. The claimed invention, however, relates to a ceramic wall-flow filter having a plurality of channels that are plugged at an inlet end or an outlet end, which causes the flow path to be across the walls. See also page 2, lines 11-19 of the specification. Shimrock et al. never expressly or impliedly discloses or contemplates a wallflow filter. Moreover, as would be recognized by one skilled in the art, the "flow path" of the liquid catalyst component or precursor would be very different depending on whether the vacuum is applied to a flow-through substrate or a wall-flow filter. Accordingly, because Shimrock et al. fails to disclose a wall-flow filter, a prima facie case of obviousness has not been established for this additional reason as well.

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As Shimrock et al. fails to teach each of the claimed limitations and teaches away from the claimed invention, Applicant respectfully submits that a *prima facie* case of obviousness has not been established. Thus, claim 1 should be in condition for allowance. Claims 2-8, 10, 15, 16, and 22-24 depend from claim 1, and therefore should each be allowed as dependent thereon.

Claim 18, while not identical to claim 1, recites similar features including a catalysed ceramic wall-flow filter having filter walls, the plurality of channels in the wall-flow filter are plugged at an inlet end or an outlet end of the wall-flow filter and means for reducing pressure in the isolated channels to below the surrounding atmospheric pressure thereby to establish a vacuum in the pore structure of the filter walls to provide isolated and evacuated channels and. As Shimrock et al. fails to teach or suggest the features of claim 18, a *prima facie* case of obviousness has not been established. Claim 21 depends from claim 18, and therefore should be allowed as dependent thereon.

As Twigg et al., Ellis, and Ikeda are not relied upon in the Office Action for the feature of reducing pressure prior to contacting the evacuated channel walls, a *prima facie* case of obviousness has also not been shown with respect to combinations of Shimrock et al. with these additional references for at least the reasons set forth above.

Additionally, with respect to claim 24, Twigg et al. (U.S. Publication No. 2007/0028604) does not qualify as prior art under 35 U.S.C. 102(e). In order to qualify as prior art under Section 102(e), the reference must be a published application, a granted patent, or an international application filed under the Patent Cooperation Treaty (which designates the U.S. and is filed in English) filed *by another* in the United States *before* the invention by the applicant. 35. U.S.C. § 102(e). Twigg et al. does not qualify as prior art because the PCT (PCT/GB04/00882) for Twigg et al. was filed March 5, 2004, which is the same date as the filing date of the priority application in the present case, not before. Also, Twigg et al. is owned by Johnson Matthey, which is also the assignee of the present case. Accordingly, Applicant respectfully requests that the rejection over claim 24 be withdrawn.

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## **Conclusion**

For all of the foregoing reasons, Applicant respectfully requests reconsideration and allowance of the claims. Applicant invites the Examiner to contact his undersigned representative if it appears that this may expedite examination.

Respectfully submitted,

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